REMARKS

Claims 4-9 are pending in this application. Applicants acknowledge, with appreciation, the Examiner's indication that claims 5, 6, 8 and 9 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In this Amendment, claim 4 has been amended to recite "generating difference data to be written into said random access memory based on the difference taken, the difference data indicating the difference between the previous data and the current data." Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for this amendment can be found in, for example, Fig. 7 and relevant description of the specification.

Claims 4 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Al-Shamma et al. in view of Shin.

In the statement of the rejection, the Examiner admitted, "Al-Shamma does not teach the subtracter performs its function when said processing unit **Write data** into RAM." The Examiner, then, referred to Shin and asserted, "the reference teaches a subtracter [performing] its function when said processing unit **Write data** into RAM," and concluded that it would have been obvious "to further include Shin's teaching into Al-Shamma data processor to reduce the number of output pins toggles, thus saving power consumption." See paragraph 3 of the Office Action.

In response, independent claim 4 has been amended to recite generating difference data to be written into said random access memory based on the difference taken, the difference data indicating the difference between the previous data and the current data." It is emphasized that the proposed combination of Al-Shamma et al. and Shin, even if it is assumed that Al-Shamma scheme can be modified based on the teachings of Shin, does not teach, based on a difference taken,

generating data indicating the difference between the previous data and the current data, and writing the difference data into a random access memory.

For example, Al-Shamma et al. discloses as follows: "said new memory content and said previously read memory content are different in more than a predetermined number of their data bits," (column 4, lines 35-40). The reference also discloses, "said means for determining further comprises means for comparing said new memory content with said previous read memory content," (column 4, lines 65-67). However, it is apparent that the above sentences do not teach, based on a difference taken, generating data indicating the difference between the previous data and the current data, and writing the difference data into a random access memory.

In more detail, Applicants will explain a difference between the claimed invention and the prior art by using exemplary data, new data D1 = 00111100 and previous data D0 = 00110111. In the proposed combination of Al-Shamma et al. and Shin, the PS bit and the value 00111100 are stored in a memory in this example, because less than half of bits (3 out of 8) are toggled. Therefore, it is emphasized that the value 00111100 itself does not show a difference between 00111100 and 00110111, and data indicating the difference is not stored in the memory.

In contrast, the claimed invention stores the difference data indicating between D1 and D2, i.e., the value of 0000101. Since the claimed invention writes into the memory the difference data indicating the difference between the stored previous data and the current data, it provides more bits with 0 when the correlation between data is high, reducing the re-writing frequency of each memory cell from 0 to 1 or from 1 to 0, and saving the power eventually better than the assumed combination of Al-Shamma et al. and Shin.

Accordingly, the proposed combination of Al-Shamma et al. and Shin does not teach a data processor including all the limitations recited in independent claim 4, as amended, and the benefit

obtained by the claimed data processor explained above. Therefore, it is submitted that independent claim 4 would not have been obvious over the references. Dependent claim 7 would not have been obvious, either, at least because the claim includes all the limitations recited in independent claim 4. Applicants respectfully solicit withdrawal of the rejection of claims 4 and 7, and favorable consideration thereof.
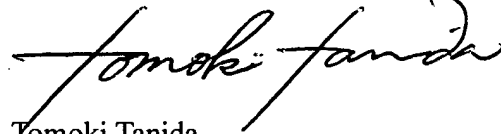
Conclusion.

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Tomoki Tanida
Recognition under 37 C.F.R. 10.9(b)

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 SAB:TT
Facsimile: 202.756.8087
Date: March 2, 2005

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as our correspondence address.**